ANNUAL REPORT

Improving Hydrological Representation in the Community Noah Land Surface Model for Intra-seasonal to Interannual Prediction Studies (Award #NA07OAR4310216, Proposal GC07-075)

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Figures:

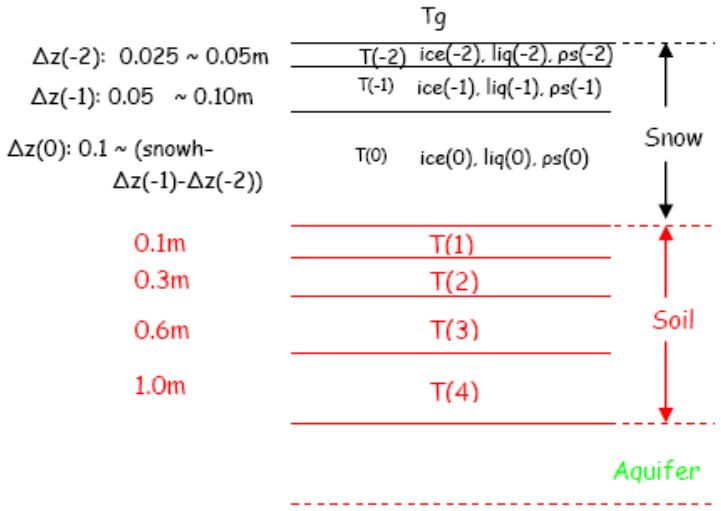

Figure 1. A 3-L snow model combined with the 4-L soil model of the Noah LSM.

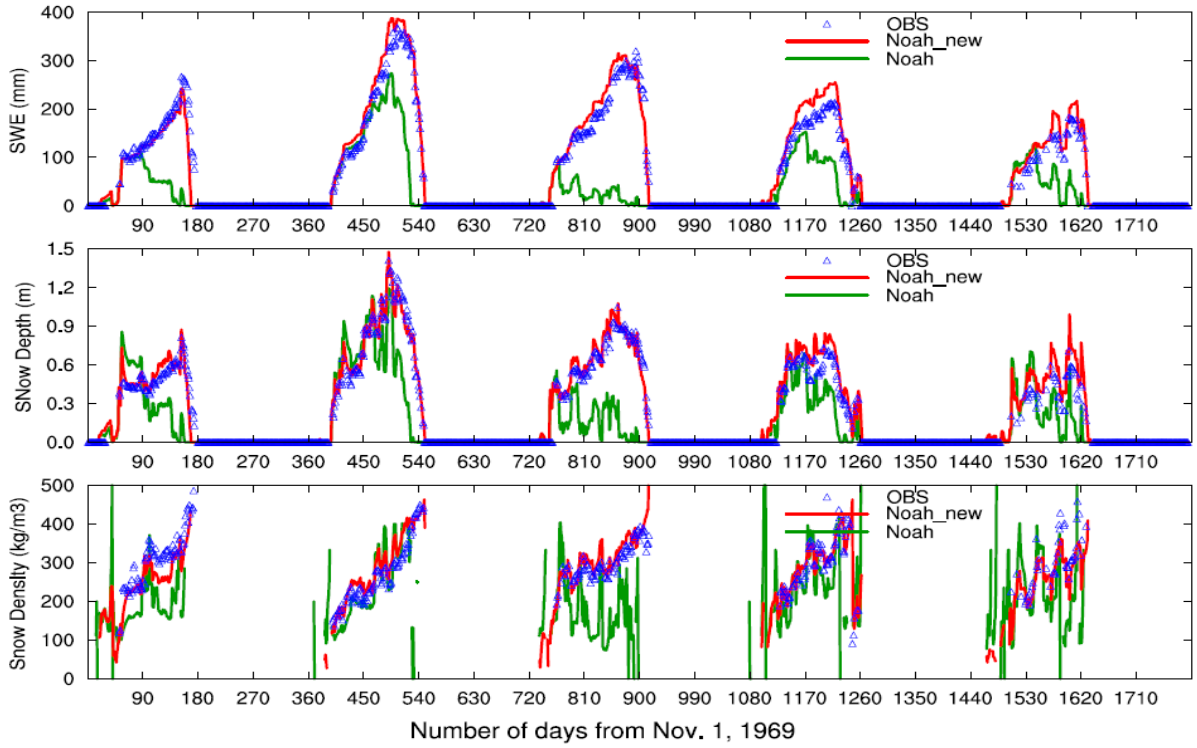

Figure 2. The 3-L snow model (Noah_new) simulated snow water equivalent (SWE), snow depth, and snow density in comparison with those by the standard Noah and observations in the Sleepers River watershed, Vermont.

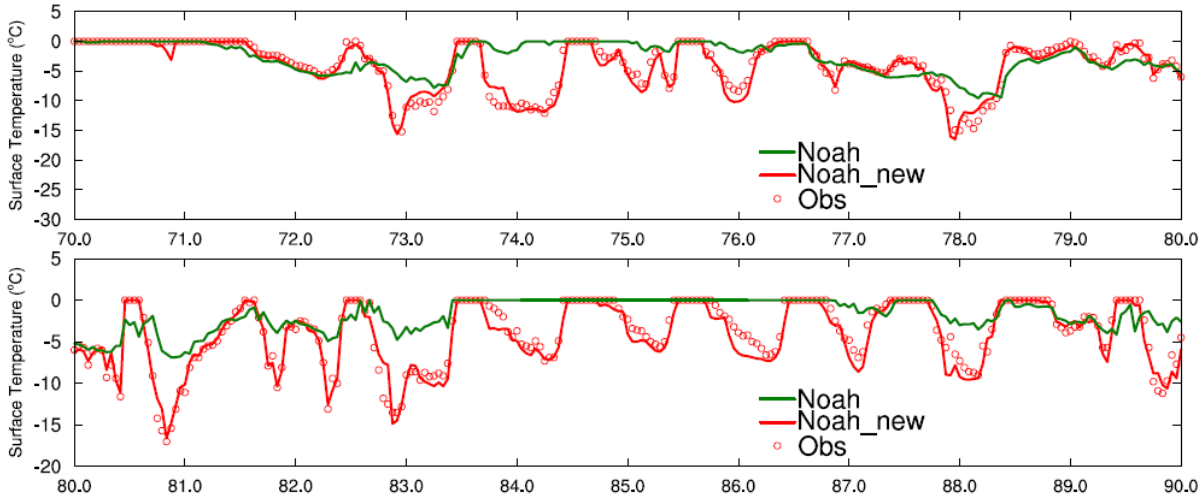

Figure 3. The 3-L snow model (Noah_new) simulated skin temperature in comparison with observations and that by the standard Noah in a France site during the 1993-1994 winter.

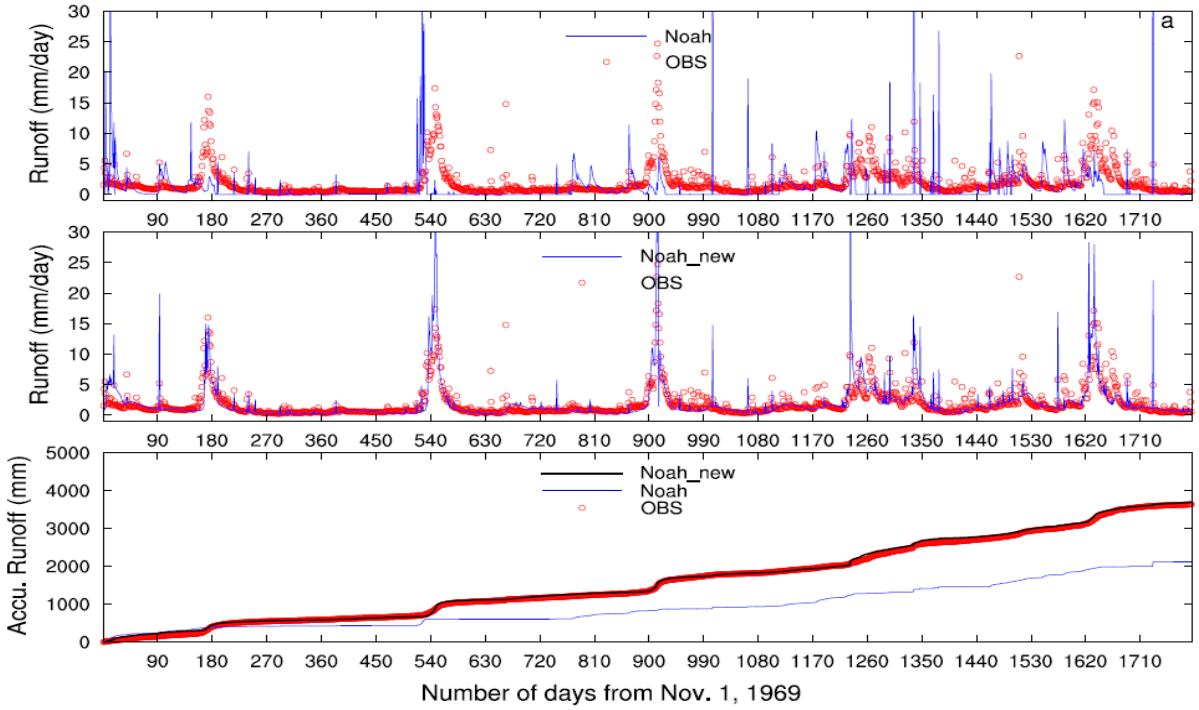

Figure 4. The simulated runoff by the new model (Noah_new) in comparison with those by the default model and observed in a sub-catchment of the Sleepers river basin, Vermont.

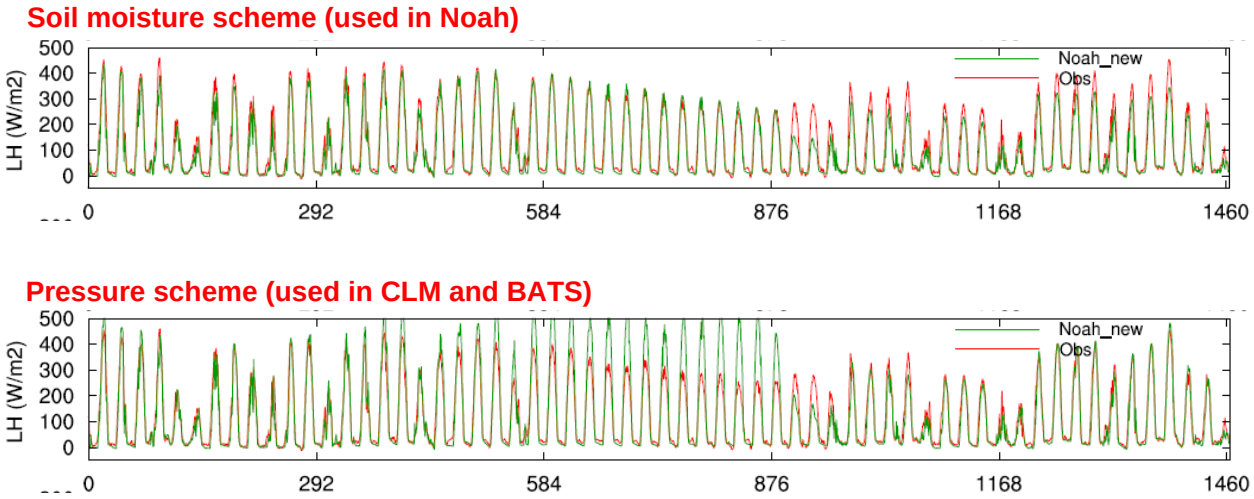

Figure 5. Modeled latent heat fluxes using different soil moisture stress factor schemes in comparison with observations during FIFE, 1987 IOP.